

REMARKS

By this amendment, Applicant cancels claims 1-15, 23-28, 30-37 and 42-49.
Reexamination and reconsideration of this application are respectfully requested in view of the following Remarks.

STATUS OF CLAIMS

Claims 1-15, 23-28, 30-37 and 42-49 are cancelled;
Claims 16-22, 29, and 38-41 are pending.

35 U.S.C. § 103

The Office Action rejected claims 16-22, 29, and 38-41 under 35 U.S.C. § 103 over Applicant's Admitted Prior Art (AAPA) in view of Miyago et al. U.S. Patent 5,036,370 ("Miyago").

Applicant respectfully submits that all of the claims 16-22, 29, and 38-41 are patentable over any possible combination of the AAPA and Miyago.

Claim 16

Among other things, the TFT substrate of claim 16 includes a gate electrode comprising a first metal film over a substrate and **a second metal film over the first metal film; a gate pad consisting of the first metal film and a portion of a removed area of the second metal film**; a passivation film pattern formed over the source electrode, having a contact hole over the drain electrode and having an exposed area of the first metal film of the gate pad, and a second pixel electrode pattern electrically contacted to the exposed area of the first metal film of the gate pad.

Applicant respectfully submits that no possible combination of the AAPA and Miyago could possibly produce a TFT substrate having such a combination of features.

The Office Action fairly admits that the AAPA fails to disclose a gate electrode comprising a first metal film over a substrate and a second metal film over the first metal film, and a gate pad consisting of the first metal film and a portion of a removed area of the second metal film.

However, the Office Action states that “Miyago teaches that the gate pad area consist of a first metal film and a portion of a removed area of the second metal film.”

Applicant respectfully disagrees.

The Office Action fails to cite a single line of text from Miyago in support of this statement, instead merely referencing elements 3 and 12 in FIG. 1.

Applicant respectfully submits that: (1) Miyago clearly and consistently teaches that the second metal film 3 completely covers the first metal film 12; (2) FIG. 1 clearly shows that the second metal film 3 completely covers the first metal film 12; and (3) Miyago does not even mention a gate pad.

As to point (1), Applicant cites, e.g.,: col. 5, lines 8-10 (“since the outer gate wiring 3 is wider than the inner gate wiring 12, the tapered inner gate wiring 12 **is completely covered with the outer gate wiring 3**”); col. 3, lines 10-3, 25-27; col. 4, lines 57-61; Abstract, lines 6-8; col. 4, lines 4-9. Applicant also respectfully notes that during a personal Examiner interview held on 10 March 2004, the undersigned attorney requested the Examiner to cite anything in Miyago disclosing a first metal film and a portion of a removed area of the second metal film. The Examiner did not cite a single line of text in Miyago that supported such a proposition.

As to point (2), FIG. 1 shows the outline of first metal layer 12 as **hidden lines** (see M.P.E.P. § 608.02, 8th Edition, Rev. 2, page 600-100) clearly indicating that layer 12 is not actually visible in the view of FIG. 1 – because it is covered by the wider second metal layer 3, as repeatedly discussed throughout Miyago (see citations above).

As to point (3), the Office Action has failed to cite anything in Miyago disclosing any gate pad at all.

Finally, Applicant respectfully submits that there has been no motivation provided to modify the AAPA to include a feature where the gate pad area consists of a first metal film and a portion of a removed area of the second metal film. At most, the motivation proposed in the Office Action might have motivated one to modify the AAPA to construct the gate line with a dual metal layer structure. It would not, however, have motivated one to provide a removed are of the second metal film in the

gate pad area.

Accordingly, for at least these reasons, Applicant respectfully traverses the rejection of claim 16 and submits that claim 16 is patentable over the cited prior art.

Claims 17-22, 29, and 38-41

Claims 17-22, 29, and 38-41 depend from claim 16 and are deemed patentable for at least the reasons set forth above with respect to claim 16, and for the following additional reasons.

Claim 19

In the TFT substrate of claim 19, a second metal film of aluminum or an aluminum alloy is disposed over a first metal film.

Applicant respectfully submits that no possible combination of the AAPA and Miyago could possibly produce a TFT substrate having such a feature.

The Office Action fairly admits that the AAPA fails to disclose such a feature.

However, the Office Action states that Miyago teaches a TFT substrate where the second metal film comprises aluminum or an aluminum alloy.

Applicant respectfully disagrees.

The Office Action cites Miyago at col. 3, lines 60-65 as supposedly disclosing such a feature.

However, the aluminum layer (4a) mentioned by Miyago at col. 3, lines 60-65 clearly cannot correspond to the recited second metal film. According to claim 19 (which depends from claim 16), **the second metal film is over a first metal film which is in turn over a substrate.** However, the aluminum layer 4a mentioned by Miyago at col. 3, lines 60-65 is deposited on the glass substrate 1 and is not deposited over any other metal layer. This is fairly obviously shown also in FIG. 2, FIG. 3A, FIG. 3B, FIG. 3C, FIG. 3D, FIG. 3E, and FIG. 3F. So, the layer 4a in Miyago cannot possibly correspond to the second metal film of claim 19 which is over a first metal film.

CONCLUSION

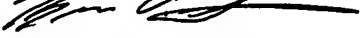
In view of the foregoing explanations, Applicant respectfully requests that the Examiner reconsider and reexamine the present application, allow claims 16-22, 29, and 38-41, and pass the application to issue. In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact Kenneth D. Springer (Reg. No. 39,843) at (571) 283-0720 to discuss these matters.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 50-0238 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17, particularly extension of time fees.

Respectfully submitted,

VOLENTINE FRANCOS & WHITT, P.L.L.C.

Date: March 21, 2005

By: 
Kenneth D. Springer
Registration No. 39,843

VOLENTINE FRANCOS & WHITT, P.L.L.C.
One Freedom Square
11951 Freedom Drive, Suite 1260
Reston, Virginia 20190
Telephone No.: (571) 283-0720
Facsimile No.: (571) 283-0740